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Education

Texas A&M University, College Station, Texas.
Graduate Student in Physics.
Ph.D. in Physics. Thesis title: *Search for Supersymmetry Using Rare $B_s^0 \to \mu^+\mu^-$ Decays at CDF Run II.* Degree expected in Fall 2005.

Belarus State University, Minsk Belarus.
B.S. in Physics. Thesis Title: *Polarized Nucleon Structure Functions in Polarized Deep Inelastic Neutrino-Nucleon Scattering.*
Graduated *summa cum laude*, degree conferred June 1999.

Work Experience

Research Assistant (1/00-Present)
Department of Physics, Texas A&M University

CDF offline Muon Reconstruction software: development, validation and support (muon extrapolator(s)). (12/99-present)

CDF EMTiming project: active involvement in the project. Includes testing the hardware components on the test stand and installing, controlling monitoring and support of the hardware/software on the CDF detector/experiment. The hardware experience includes work with light sources and detectors (LED, PIN, PMT, optical fibers), digital and analog circuits, distributed analog circuits, signal transmission/reception/generation (esp. differential signaling, LVDS); signal readout and DAQ (VME). (06/02-present)

CDF online consumers (software): ObjectMon support and development – CDF Level3 trigger monitoring consumer. (01/01-present)

Teaching Assistant Department of Physics, Texas A&M University
Grading Assignment for *Methods of Theoretical Physics I*, graduate level course. (9/99-12/99,9/05-12/05)
Grading Assignment for *Quantum Mechanics II*, graduate level course.

(1/05-5/05)

Research Experience

Deep Inelastic Scattering phenomenology: neutrino/lepton nucleon polarized scattering (BSU, Minsk Belarus 1996-1999)

W/Z production at LHC: Monte Carlo study (BSU, Minsk Belarus 1999)

Supersymmetry (Monte Carlo): gluino squark production at the Tevatron Tripler and Tevatron RunII (TAMU 1999-2000)

$B_s \to \mu^+\mu^-$ FCNC decay search at CDF using Run II data (TAMU Dec 2001-present)

$\gamma + \not{E}_T$ study at CDF using Run II data (TAMU Dec 2004-present)

Computing, Programming Experience

System administrator for TAMU computers at CDF: RedHat Linux systems (up to 10 systems in control). Includes experience with x86 based (Intel/AMD/etc) computing hardware; networking. (2000-present)

Operation Systems experience: MS DOS (and alike), MS Windows; SGI UNIX, Sun UNIX, Linux (other POSIX OS's); VxWorks.

Programming Languages: C++, C, FORTRAN; SQL, (UNIX) shell scripts, tcl/tk, perl. PAW, ROOT scripts.

Code/program development/debugging: CVS, various debuggers.

Development/support within a large computing project: CDF offline/online software (400MB of source code per release).

Conferences, Schools, Workshops

ROOT2001 Users Workshop; Batavia, IL June 2003.

DPF Snowmass 2001 Conference; Snowmass, CO July 2001.

APS/DPF April 2003 Meeting; Philadelphia, PA April 2003.

LHC2003 Symposium, Batavia, IL May 2003.

APS/DPF April 2004 Meeting; Denver, PA May 2004.

New Perspectives Conference, 2004, FNAL, Batavia IL.

6th International Conference on Hyperons, Charm, and Beauty Hadrons, BEACH 2004; Chicago, IL July 2004.

Conference Talks

Status of Search for Rare Decays $D^0 \to \mu^+\mu^-$ and $B_s \to \mu^+\mu^-$ Using CDF Run2 Data V. Krutelyov for CDF Collaboration, APS April 2003 Meeting, Philadelphia, PA.

Search for Rare Decays $B_s \to \mu^+\mu^-$ and $B_d \to \mu^+\mu^-$ Using CDF Run II Data, APS April 2004 Meeting, Denver, CO.

B physics: new states, rare decays and branching ratios in CDF, BEACH 2004, Chicago, IL.

Presentations

Search for New Physics Using Rare $B_{s(d)} \to \mu^+\mu^-$ Decays at CDF Run II
V. Krutelyov for CDF Collaboration, Annual Fermilab DOE Review 2004, Poster Session, Batavia IL.

Search for New Physics Using Rare $B_{s(d)} \to \mu^+\mu^-$ Decays at CDF Run II
V. Krutelyov for CDF Collaboration, New Perspectives Conference, 2004, Poster Session, Batavia IL.

Rare Decays of Heavy Flavor at CDF
V. Krutelyov for B-group, CDF Collaboration Meeting, October 2005, Batavia IL.

Awards & Honors

Diploma at High School Physics Olympiad (State level) 1994 (Belarus);

Diploma at International Young Physicist Tournament 1993 (Protvino, Russia);

Award at Belarus State University Student's Conference 1999;

G.Soros Fellowship for Advanced Physics Students 1994-1995;

DPF Snowmass2001 Travel Fellowship 2001;

2001 Award for Exceptional Performance in Graduate Pre-Dissertation Physics Research/Academics (Sponsored by the Physics Department, Texas A&M University)

APS 2004 Travel Award;

1st prize on the New Perspectives Conference, Fermilab, Batavia IL 2004.

Publications

Prospect of Searches for Supersymmetric Gluons and Quarks at Tevatron and Tripler V. Krutelyov, R. Arnowitt, B. Dutta, T. Kamon, P. McIntyre, Y. Santoso. CDF-Note 5452; hep-ph/0011253; Phys.Lett.B505:161-168,2001

D. Acosta *et al.* [CDF Collaboration], *Search for* $B_s^0 \to \mu^+\mu^-$ *and* $B_d^0 \to \mu^+\mu^-$ *decays in* $p\bar{p}$ *collisions at* $\sqrt{s} = 1.96\ TeV$, Phys. Rev. Lett. **93**, 032001 (2004) [arXiv:hep-ex/0403032].

V. Krutelyov [for CDF Collaboration], *B-physics: new states, rare decays and branching ratios in CDF*, Nucl. Phys. Proc. Suppl. **142**, 173 (2005); CDF-Note 7222; FERMILAB-CONF-04-316-E [arXiv:hep-ex/0411010].

A. Abulencia *et al.* [CDF Collaboration], *Search for* $B_s^0 \to \mu^+\mu^-$ *and* $B_d^0 \to \mu^+\mu^-$ *decays in* $p\bar{p}$ *collisions with CDF II*, Accepted for publication by Phys. Rev. Lett [arXiv:hep-ex/0508036].

R. Bernard *et al.* [CDF and DØ Collaborations], *A Combination of CDF and DØ Limits on the Branching Ratio of* $B_s^0(d) \to \mu^+\mu^-$ *Decays*, [arXiv:hep-ex/0508058].

Publications, Internal

Run II Muon Reconstruction Efficiency, V. Krutelyov, J.P. Done, T. Kamon, P. Singh. CDF-Note 5327; 5/30/00

How the ObjectMon GoodRun Decision is Made, M. Hennecke, M. Goncharov, T. Kamon, V. Krutelyov, S.W. Lee, D. Litvintsev, T. Muller, D. Toback, W. Wagner. CDF-Note 5867; 2/25/02

A Guide to Muon Reconstruction for Run 2, J. Bellinger, K. Bloom, W. D. Dagenhart, A. Korn, V. Krutelyov, V. Martin, M. Schmitt. CDF-Note 5870; 2/27/02

Acceptance Estimate for $B_s^0 \to \mu^+\mu^-$ Decays, D.Glenzinski, M.Herndon, T.Kamon, V. Krutelyov, C.-J. Lin, J. Thom, A. Yagil. CDF-Note 6204; 12/3/02

Level-1 and Level-3 Trigger Efficiency Estimates for the $B_s^0 \to \mu^+\mu^-$ Analysis, D. Glenzinski, M. Herndon, T. Kamon, V. Krutelyov, C.-J. Lin, J. Thom, A. Yagil. CDF-Note 6289; 1/28/03

Silicon Efficiency Estimate for the $B_s^0 \to \mu^+\mu^-$ Analysis, D. Glenzinski, M. Herndon, T. Kamon, V. Krutelyov, C.-J. Lin, J. Thom, A. Yagil. CDF-Note 6318; 2/11/03

A Search for $B_s^0 \to \mu^+\mu^-$ Decays Using RunII Data, D. Glenzinski, M. Herndon, T. Kamon, V. Krutelyov, C.-J. Lin, J. Thom, A. Yagil. CDF-Note 6397; 3/25/03

Kinematic-dependent matching cut for low-p_T CMX muons, D. Glenzinski, M. Herndon, T. Kamon, V. Krutelyov, C.-J. Lin, J. Thom CDF-Note 6835; 1/11/04

Measurement of Level 1, 2 and 3 low p_T dimuon efficiencies for the $B_s^0 \to \mu^+\mu^-$ analysis, D. Glenzinski, M. Herndon, T. Kamon, V. Krutelyov, C.-J. Lin, C. Plager, N. Wisniewski CDF-Note 7314; 10/25/04

A Search for $B_s^0 \to \mu^+\mu^-$ Decays Using 364 pb-1 of Data, D.Glenzinski, M.Herndon, T.Kamon, V.Krutelyov, C.-J.Lin CDF-Note 7463; 2/1/05.

EMTiming Hardware Monitoring & Maintenance, M. Goncharov, V. Krutelyov, D. Toback and P. Wagner CDF-Note 7479; 2/14/05.

Performance of the EMTiming System as Seen by the ObjectMon Online Monitoring System, M. Goncharov, V. Khotilovich, V. Krutelyov, S.W. Lee, D. Toback and P. Wagner CDF-Note 7515; 3/2/05.

The Timing System for the CDF Electromagnetic Calorimeters, M. Goncharov, T. Kamon, S.W. Lee, V. Krutelyov, V. Khotilovich, D. Toback, P. Wagner, H. Frisch, H. Sanders, M. Cordelli, F. Happacher, S. Miscetti, and R. Wagner CDF-Note 7918; to be submitted to NIM; 11/3/05.